

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Sidney Shaw White, Jr.; Hoa Thien Dang and Sheila Tatman

Filed: Concurrently Herewith

For: ABRASION RESISTANT COATING COMPOSITION, PROCESS FOR MAKING  
SUCH COATING COMPOSITION AND ARTICLES COATED THEREWITH

Serial No.: Unknown

Prior Group Art Unit: 1712

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*Albire Ferrara*  
Signature

*2-7-01*  
Date

BOX PATENT APPLICATION  
Assistant Commissioner For Patents  
Washington, D.C. 20231

Dear Sir:

**PRELIMINARY AMENDMENT TO REDUCE FILING FEES**

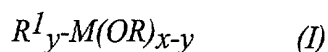
Please amend the application as follows prior to calculating the filing fee and prior to examination on the merits.

In the claims:

Kindly delete claims 1-23 and add the following new claims:

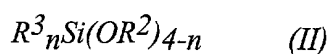
- 24. A plastic material having at least one face coated with a cured layer of an abrasion or scratch resistant coating composition comprising:

- (A) a component which is the reaction product with oxalic acid of at least one organometallic compound of formula:

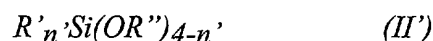


wherein M is a metal, R is H or an alkyl radical,  $R^1$  is a chelating ligand, x is the valency of the metal, y is an integer at least equal to 1 and x-y is at least equal to 1; and

- (B) at least one organoalkoxysilane of formula:



wherein  $R^2$  is an alkyl radical,  $R^3$  is an epoxidized alkyl group and n is an integer from 1 to 3, or a mixture of the organoalkoxysilane of formula (II) with an alkoxysilane of formula (II')



wherein  $n'$  is an integer from 0 to 3,

$R''$  is H, an alkyl radical or an alkoxyalkyl radical, and

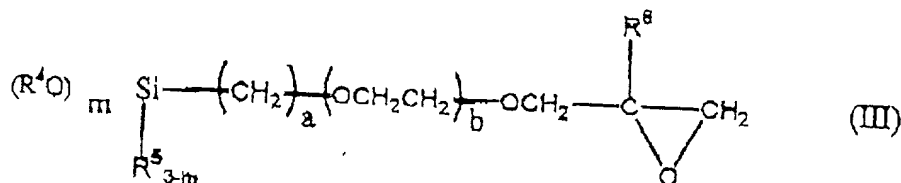
$R'$  is a vinyl, (meth)acryl, aromatic, cyclic or aliphatic alkyl radical.

25. The plastic material substrate according to claim 24, wherein M is selected from Ti, Zr, Sc, Nb, V, Hf, Cr, Y, Al, Ge, Sn, Ta, and W.

26. The plastic material substrate according to claim 24, wherein M is Ti or Zr.

27. The plastic material substrate according to claim 24, wherein R<sup>1</sup> is a ligand produced from a compound of formula L<sup>1</sup>COCH<sub>2</sub>COOL<sup>2</sup> or L<sup>3</sup>COCH<sub>2</sub>COOL<sup>4</sup>, wherein L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, and L<sup>4</sup> are C<sub>1</sub>-C<sub>4</sub> lower alkyl groups.

28. The plastic material substrate according to claim 24, wherein the organoalkoxysilane has formula:



wherein R<sup>4</sup> is an alkyl or alkoxy alkyl group having 1 to 4 carbon atoms; R<sup>5</sup> is an alkyl or aryl group having 1 to 6 carbon atoms; R<sup>6</sup> is H or a methyl group, m is 2 or 3, a is an integer from 1 to 6 and b is 0, 1 or 2.

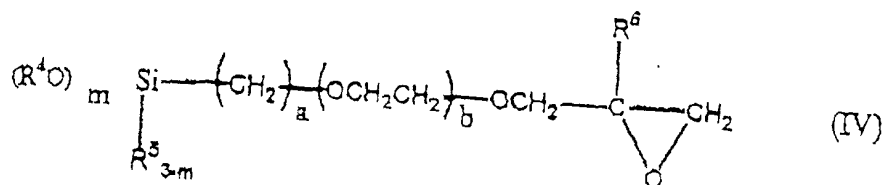
29. The plastic material substrate according to claim 28, wherein the organoalkoxysilane is selected from the group consisting of  $\gamma$ -glycidoxypropyltrimethoxysilane,  $\gamma$ -glycidoxypropyltriethoxysilane,  $\gamma$ -glycidoxypropylmethyldimethoxysilane,  $\gamma$ -glycidoxypropylmethyldiethoxysilane, and  $\gamma$ -glycidoxyethoxypropylmethyldimethoxysilane.

30. The plastic material substrate according to claim 24, wherein components (A) and (B) are further partially or fully hydrolyzed.

31. The plastic material substrate of claim 24, wherein the cured abrasion-resistant layer of the composition as set forth in claim 24 is deposited on top of a first abrasion-resistant coating comprising a (meth)acrylic or polysiloxane cured material.

32. The plastic material substrate of claim 31, wherein the polysiloxane coating is a coating obtained from a hydrolyzate of a silane compound containing an epoxy group and at least two alkoxy groups directly linked to silicon.

33. The plastic material substrate according to claim 32, wherein the silane compound has formula:



wherein R<sup>4</sup> is an alkyl or alkoxy alkyl group having 1 to 4 carbon atoms; R<sup>5</sup> is an alkyl or aryl group having 1 to 6 carbon atoms; R<sup>6</sup> is H or a methyl group, m is 2 or 3, a is an integer from 1 to 6 and b is 0, 1 or 2.

34. The plastic material substrate of claim 24, wherein the cured abrasion-resistant layer of the composition as set forth in claim 24 is deposited on top of a first cured layer of an abrasion-resistant composition including at least one hydrolyzate of silane compounds containing an epoxy group and at least two alkoxy groups, colloidal silica and at least one aluminum chelate compound.


35. An ophthalmic lens comprising a plastic material substrate as set forth in claim 24.

36. An ophthalmic lens comprising a plastic material substrate as set forth in claim 34. — —

This amendment is submitted to cancel claims prosecuted in the parent case. The new claims correspond to the claims subject of the restriction in the parent case with claim 24 written to consolidate original claim 1 into claim 17, now cancelled.

#### REMARKS

Should any fees under 37 CFR 1.16-1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct such fees from Deposit Account No. 10-1205/ESSI:012D1. The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

  
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